### 510(K) SUMMARY

This summary of 510(k) safety and effectiveness information is being	submitted in accordance wit
the requirements of SMDA 1990 and 21 CFR 807.92.	

The assigned 510(k) number is:	
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1. Submitter's Identifications:

MAY 2 3 2007

Zen Strong Medical Technology Co., Ltd.

6F No. 88, Ning Jin St., Keelung, Taiwan, R.O.C.

Contact: Cheng Roei-Sheng

Date of Summary Preparation: February 15, 2007

2. Name of the Device:

Blood Pressure Monitor, models ZSBP-001 and ZSBP-002 for wrist type and ZSBP-101 for upper arm type.

3. Classification information:

Regulation Number : 870.1130

Medical Specialty : Neurology

Product Code : DXN

Device Class : II

Tier : II

#### 4. Device Description:

Basically two different type of blood pressure monitors are to be included in this 510(K) submission, the wrist type and upper arm type. The main intended use for these two type of blood pressure monitor is as the following description:

- 1> ZSBP-001 and ZSBP-002 blood pressure monitor. This series of device measures automatically the human being systolic, diastolic blood pressure and heart beat rate from wrist by using the oscillometric method for the patient of ages above 18 years old.
- 2> ZSBP-101 blood pressure monitor measures automatically human being systolic, diastolic blood pressure and heart beat rate from upper arm by using the Oscillometric method for the patient of the age above 18 tears old.

For all of these three blood pressure monitors, the measurement values can be read out and keep memory on the LCD panel for home care use( without the involvement of professional physician).

From the construction point of view, the non-invasive electronic blood pressure monitor was composite of blood pressure measuring circuit via Oscillometric method, pressure sensor, measuring cuff at upper arm or wrist, pneumatic pumping inflation and deflation system, housing, display LCD, and measuring software, and memories......etc.

The main operation for the non-invasive electronic blood pressure monitor is carried out in such a way that the measuring cuff at wrist or upper arm is inflated to the set pressure level, then deflated to zero automatically. During the inflation and deflation, the pressure change with respective to time were recorded as the database of measurement. Then the following measuring results will be calculated against the measurement database, and displayed on the LCD of device:

- Blood pressure information including systolic and diastolic pressure (calculated via Oscillometric method)
- Heart beat rate.

In addition to the main blood pressure and heart beat rate measuring function, the ZSBP series of blood pressure monitor provides also the memory function for user to store the result of measurement.

# 5. Intended Use:

ZSBP-001 and ZSBP-002 blood pressure monitor measures automatically human being systolic, diastolic blood pressure and heart beat rate from wrist by using the oscillometric method for the patient of the age over 18 years old.

ZSBP-101 series of blood pressure monitor measures automatically human being systolic, diastolic blood pressure and heart beat rate from upper arm by using the Oscillometric method for the patient of the age over 18 years old.

All measurement values can be read out and keep memory on the LCD panel for home care use.

- 6. Comparison to the 510(k) Cleared Device (Predicate Device):
  - 1> Health & Life model HL-168 (K050249).
  - 2> Micro life model BP-3BT0-AP (K041411).
- 7. <u>Discussion of Non-Clinical Tests Performed Determination of Substantial Equivalence are as</u> follows:

Compliance to applicable voluntary standards includes ANSI/AAMI, SP 10-1992, as well as EN 60601-1, and EN 60601-1-2 requirement. For the conformity of standards, the representative models of ZSBP-001 and ZSBP-101 were chosen as testing samples.

In addition to the compliance of voluntary standards, the software verification has been carried out according to the FDA software guidance.

#### 8. Conclusions

The Zen Strong model ZSBP-001 and ZSBP-002 blood pressure monitor (measurement at wrist) has the same intended use and technical characteristics as the cleared model HL-168 (K050249), and ZSBP-101 series of blood pressure monitor (measured at upper arm) has the same intended use and technical characteristics as the cleared model BP-3BT0-AP (K041411).

Moreover, verification and validation tests contained in this submission demonstrate that the difference in the submitted demonstrate that the difference in the submitted models could maintain the same safety and effectiveness as that of cleared devices.

In the other words, those engineering difference do not: (1) affect the intended use or (2) alter the fundamental scientific technology of the device, and the new models as mentioned on this submission are considered substantial equivalent to the predicate devices.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

MAY 2 3 2007

Zen Strong Medical Technologies Co. c/o Cheng- Roei-Sheng 6F, No. 88 Ning Jing St. Keelung China (Taiwan)

Re: K070473

Trade/Device Name: Blood Pressure Monitor, models ZSBP-001 and ZSBP-002 for wrist

type and ZSBP-101 for upper arm type. Regulation Number: 21 CFR 870.1130

Regulation Name: Noninvasive blood pressure measurement system

Regulatory Class: Class II

Product Code: DXN Dated: April 16, 2007 Received: April 16, 2007

Dear Mr. Roei-Sheng:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

# Page 2 – Mr. Roei-Sheng

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050. This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <a href="http://www.fda.gov/cdrh/industry/support/index.html">http://www.fda.gov/cdrh/industry/support/index.html</a>.

Sincerely yours,

Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure'

# **Indications For Use**

510(k) Number (if known):			
Device Name: Blood Pressure Monitor, models ZSBP-001and ZSBP-002 for wrist type, and ZSBP-101 for upper arm type.			
Indications For Use:			
ZSBP-001 and ZSBP-002 blood pressure monitor measures automatically human being systolic, diastolic blood pressure and heart beat rate from wrist by using the Oscillometric method for the patient of the age over 18 years old.			
ZSBP-101 series of blood pressure monitor measures automatically human being systolic, diastolic blood pressure and heart beat rate from upper arm by using the Oscillometric method for the patient of the age over 18 years old.			
All measurement values can be read out and keep memory on the LCD panel for home care use.			
Prescription Use OR Over-The-Counter Use			
(Part 21 CFR 801 Subpart D) (21 CFR 807 Subpart C)			
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)			
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Concurrence of CDRH, Office of Device Evaluation (ODE)			
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(Division Sign-Off)			
Division of Cardiovascular Devices 510(k) Number <u>4070473</u>			